(g) In accordance with good manufacturing practice finished rubber articles intended for repeated use in contact with food shall be thoroughly cleansed prior to their first use in contact with food.

(h) The provisions of this section are not applicable to rubber nursing-bottle nipples.

(i) Acrylonitrile copolymers identified in this section shall comply with the provisions of §180.22 of this chapter.

[42 FR 14572, Mar. 15, 1977]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §177.2600, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 177.2710 Styrene-divinylbenzene resins, cross-linked.

Styrene-divinylbenzene cross-linked copolymer resins may be safely used as articles or components of articles intended for repeated use in producing, manufacturing, packing, processing, preparing, treating, packaging, transporting, or holding food, in accordance with the following prescribed conditions:

(a) The resins are produced by the copolymerization of styrene with divinylbenzene.

(b) The resins meet the extractives limitations prescribed in this paragraph:

(1) The resins to be tested are ground or cut into small particles that will pass through a U.S. standard sieve No. 3 and that will be held on a U.S. standard sieve No. 20.

(2) A 100-gram sample of the resins, when extracted with 100 milliliters of ethyl acetate at reflux temperature for 1 hour, yields total extractives not to exceed 1 percent by weight of the resins.

(c) In accordance with good manufacturing practice, finished articles containing the resins shall be thoroughly cleansed prior to their first use in contact with food.

§ 177.2800 Textiles and textile fibers.

Textiles and textile fibers may safely be used as articles or components of articles intended for use in producing, manufacturing, packing, processing, preparing, treating, packaging, transporting, or holding food, subject to the provisions of this section.

(a) The textiles and textile fibers are prepared from one or more of the fibers identified in paragraph (d) of this section and from certain other adjuvant substances required in the production of the textiles or textile fibers or added to impart desired properties.

(b) The quantity of any adjuvant substance employed in the production of textiles or textile fibers does not exceed the amount reasonably required to accomplish the intended physical or technical effect or any limitation further provided.

(c) Any substance employed in the production of textiles or textile fibers that is the subject of a regulation in parts 174, 175, 176, 177, 178 and §179.45 of this chapter conforms with any specification in such regulation.

(d) Substances employed in the production of or added to textiles and textile fibers may include:

(1) Substances generally recognized as safe in food.

(2) Substances subject to prior sanction or approval for use in textiles and textile fibers and used in accordance with such sanction or approval.

(3) Substances generally recognized as safe for use in cotton and cotton fabrics used in dry-food packaging.

(4) Substances that by regulation in this part may safely be used in the production of or as a component of textiles or textile fibers and subject to provisions of such regulation.

(5) Substances identified in this paragraph (d)(5), subject to such limitations as are provided:

List of substances	Limitations
(i) Fibers:	
Cotton.	
Polyethylene terephthalate complying in composition with the provisions of §177.1630(e)(4)(ii).	For use only in the manufacture of items for repeated use.
Rayon.	
(ii) Adjuvant substances:	
Aluminum stearate.	

List of substances	Limitations
Borax	For use as preservative only.
Butyl-acetyl ricinoleate.	
Colorants used in accordance with § 178.3297 of this chapter..	
Di-*tert*-butyl hydroquinone.	
Dimethylpolysiloxane.	
Ethylenediaminetetraacetic acid, sodium salt.	
4-Ethyl-4-hexadecyl morpholinium ethyl sulfate	For use only as a lubricant in the manufacture of polyethylene terephthalate fibers specified in paragraph (d)(5)(i) of this section at a level not to exceed 0.03 percent by weight of the finished fibers.
Eugenol.	
Fats, oils, fatty acids, and fatty alcohols derived from castor, coconut, cottonseed, fish, mustardseed, palm, peanut, rapeseed, ricebran, soybean, sperm, and tall oils and tallow.	
Fats, oils, fatty acids, and fatty alcohols described in the preceding item reacted with one or more of the following substances:	
n-Butyl and isobutyl alcohol.	
Diethylene glycol.	
Diethanolamine.	
Glycerol.	
Hexylene glycol (2-methyl-2,4-pentanediol).	
Hydrogen.	
Isopropyl alcohol.	
Methyl alcohol.	
Oxygen.	
Polyethylene glycol (molecular weight 400–3,000).	
Potassium hydroxide.	
Propylene glycol.	
Sodium hydroxide.	
Sulfuric acid.	
Formaldehyde	For use as preservative only.
Glyceryl mono-12-hydroxystearate.	
2-(9-Heptadecenyl)-1-[2-(10-octadecenamido)ethyl-2-imidazolinium ethyl sulfate.	
Hexylene glycol (2-methyl,-2,4-pentanediol).	
Isobutyl alcohol.	
Isopropyl alcohol.	
Kerosene.	
Methyl ester of sulfated ricebran oil.	
Mineral oil	For use only at a level not to exceed 0.15 percent by weight of finished fibers.
Mono- and diisopropylated *m*- and *p*-cresols (isothymol derivative).	
N-Oleyl, *N*′-acetyl, *N*′-β-hydroxy-ethylenediamine.	
Petrolatum.	
Petroleum sulfonate.	
Pine oil.	
Polybutene, hydrogenated; complying with the identity prescribed under 21 CFR 178.3740(b) of this chapter.	
Polyethylene, oxidized (air blown).	
Polyvinyl acetate.	
Polyvinyl alcohol.	
Potassium soap of a saponified sulfated castor oil.	
Sodium bis(2,6-dimethylheptyl-4) sulfosuccinate.	
Sodium dioctyl sulfosuccinate.	
Sodium dodecyl benzenesulfonate.	
Sodium fluoride	For use as preservative only.
Sodium hydrosulfite.	
Sodium hypochlorite.	
Sodium lauryl sulfate.	
Sodium 2-mercaptobenzothiazole	Do.
Sodium pentachlorophenate	Do.
Styrene-butadiene copolymer.	
Sulfated butyl, isobutyl and propyl oleate.	
Tallow.	
Tallow, sulfonated.	
Titanium dioxide.	
Triethanolamine.	
Ultramarine blue.	
Waxes, petroleum.	
Zinc hydrosulfite.	

(e) Textile and textile fibers are used as articles or components of articles that contact dry food only.

(f) The provisions of this section are not applicable to jute fibers used as prescribed by §178.3620(d)(2) of this chapter.

[42 FR 14572, Mar. 15, 1977, as amended at 46 FR 37042, July 17, 1981; 49 FR 4372, Feb. 6, 1984; 49 FR 5748, Feb. 15, 1984; 56 FR 42933, Aug. 30, 1991]

§177.2910 Ultra-filtration membranes.

Ultra-filtration membranes identified in paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section may be safely used in the processing of food, under the following prescribed conditions;

(a)(1) Ultra-filtration membranes that consist of paper impregnated with cured phenol-formaldehyde resin, which is used as a support and is coated with a vinyl chloride-acrylonitrile copolymer.

(2) Ultra-filtration membranes that consist of a sintered carbon support that is coated with zirconium oxide (CAS Reg. No. 1314–23–4) containing up to 12 percent yttrium oxide (CAS Reg. No. 1314–36–9).

(3) Ultra-filtration membranes that consist of an aluminum oxide support that is coated with zirconium oxide (CAS Reg. No. 1314–23–4) containing up to 5 percent yttrium oxide (CAS Reg. No. 1314–36–9).

(4) Ultrafiltration membranes that consist of a microporous poly(vinylidene fluoride) membrane with a hydrophilic surface modifier consisting of hydroxypropyl acrylate/tetraethylene glycol diacrylate copolymer.

(b) Any substance employed in the production of ultra-filtration membranes that is the subject of a regulation in parts 174, 175, 176, 177, 178 and §179.45 of this chapter conforms with the specifications of such regulation.

(c) Ultra-filtration membranes are used in the physical separation of dissolved or colloidally suspended varying molecular size components of liquids during the commercial processing of bulk quantities of food.

(d) Ultra-filtration membranes shall be maintained in a sanitary manner in accordance with good manufacturing practice so as to prevent potential microbial adulteration of the food.

(e) Ultrafiltration membranes identified in paragraph (a)(4) may be used to filter aqueous or acidic foods containing up to 13 percent of alcohol at temperatures not to exceed 21 °C (70 °F).

(f) To assure safe use of the ultra-filtration membranes, the label or labeling shall include adequate directions for a pre-use treatment, consisting of conditioning and washing with a minimum of 8 gallons of potable water prior to their first use in contact with food.

(g) Acrylonitrile copolymers identified in this section shall comply with the provisions of §180.22 of this chapter.

[42 FR 14572, Mar. 15, 1977, as amended at 53 FR 17925, May 19, 1988; 58 FR 48599, Sept. 17, 1993; 60 FR 54426, Oct. 24, 1995]

PART 178—INDIRECT FOOD ADDITIVES: ADJUVANTS, PRODUCTION AIDS, AND SANITIZERS

Subpart A [Reserved]

Subpart B—Substances Utilized To Control the Growth of Microorganisms

Sec.

Subpart C—Antioxidants and Stabilizers

Subpart D—Certain Adjuvants and Production Aids